Research Note

Thiara scabra (O. F. Müller, 1774): The introduction of another Asian freshwater snail into the United States

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The Thiaridae consists of numerous species of non-marine snails in Africa, Asia, Australia, tropical America, and many island archipelagoes (Morrison, 1954, Glaubrecht, 1999). The family is unusual in that parthenogenetic reproduction is the normal reproductive mode, which causes each individual to be reproductively isolated from all other individuals. Thus, a single specimen is all that is required to establish a new colony in an appropriate habitat. A recent introduction into Florida freshwater systems is one such species.

Thiara scabra (O. F. Müller, 1774)
The Pagoda Tiara
(Figure 1)

OBSERVATIONS

Identification: The species is recognized by the following combination of characters (Brandt, 1974). It has a neomelanian operculum: the nucleus is offset strongly toward the lower columellar margin (Thompson, 2006: fig. 38). The shell is medium-sized, generally up to 20 mm in length, and consists of 6–8 whorls remaining in adults. Usually early juvenile whorls are worn away. The shell is pagodiform with strongly shouldered whorls that bear regularly spaced stout spines or knobs. Strongly impressed spiral sculpture is present, which usually is most distinct below the periphery. The ground color is tawny with vertical, rust-colored flames and blotches alternating with the spines.

Distribution: Widely deployed and locally abundant throughout its range in South and Southeast Asia, South China, the Indo-Australian Archipelago, and western Pacific Islands (Brandt, 1974: 163–164). The senior author has encountered this species on many occasions in Southeast Asia. It is tolerant to many environmental settings, as is reflected by its wide distribution. One such setting is canals in semitropical regions, such as are abundant in South Florida. It is not surprising to us that the snail finally was found there. It is a medium-sized, ornate organism that has potential in the aquarium trade. We suspect that the species was deliberately introduced because of the isolated locality where it is found.

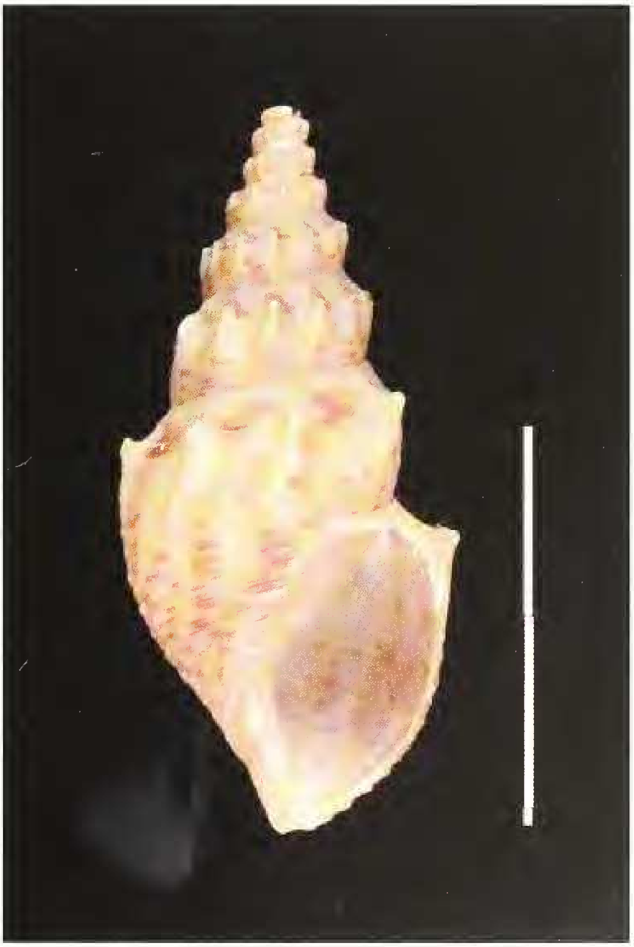

Figure 1. *Thiara scabra* (O. F. Müller, 1774), UF 391616. Scale bar = 1 cm.

Discussion: On September, 2006, specimens were first collected by Todd Ennis and Cheri Hughes of Tetra Tech, Inc. at the Port Mayaca Aquifer Injection well site (UF 391616). The Port Mayaca site is located in the northwest corner of Section 14, Township 40 South, Range 37 East, near the confluence of the L-65 Canal and St. Lucie River (C-44 Canal) in the Town of Port Mayaca, Martin Co., Florida (26°59′17″ N, 80°36′22″ W). The site is located on a South Florida Water Management District (FWMD)-owned parcel of land adjacent to the S-153 spillway and lock, which conveys water to and from the L-65 Canal and the St. Lucie River. The location is approximately 2,000 feet east of the Herbert Hoover Dike, south of the service access road, and approximately 100 feet west of the intersection with the L-65 canal. Property to the north is under cultivation of sugar cane.

Doug Strom of Water and Air Research Water & Air Research, Inc., Gainesville, Florida, reports to us that a co-worker, Laura Line, collected this snail in the West Palm Beach Canal, 5 kilometers from its junction with Lake Okeechobee on April 10, 2007.

Vernacular Etymology: The vernacular name Pagoda Tiara is taken from Reeve (1860, pl. 26, fig. 182), from a name he proposed for a common form of this species. Tiara comes from the generic name *Thiara*, which is derived from Persian through the Classical Greek, and means a tiara. *Thiara scabra* possess a corona of spines on the shoulder of the whorls reminiscent of a tiara.

ACKNOWLEDGMENTS

We thank Rob Lasley, Florida Museum of Natural History, for photographing Figure 1.

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